2013 Consumer Confidence Report for the City of Riverbank Water System

This report contains important information about the quality of drinking water for the period of January 1, - December 31, 2013. Included are details about where your water comes from, data about what is in your water and how water quality tests on your drinking water compare to federal and state drinking water standards. We encourage our non-English speaking residents to speak with someone who can assist you in reading this report.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo ó hable con alguien que lo entienda bien.

The water supplied to the City of Riverbank residents is comprised solely of groundwater. Groundwater is the water that soaks into the soils from rain or other precipitation and moves downward to fill cracks and other openings in beds of rocks and sand. The City has 10 active wells.

Name & location of source(s):

Well 2 (8th St.),	**Well 3** (Jackson St.),
Well 4 (Pioneer St.),	**Well 5** (Cipponeri St.),
Well 6 (Crossroads),	**Well 7** (Arizona Ave.),
Well 8 (Novi Ave.),	**Well 9** (Prospector Pkwy)
Well 10 (Oakdale Rd.)	**Well 12** (Chief Tucker)

Definitions of Terms used in this report:

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

PDWS (Primary Drinking Water Standards): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

SDWS (Secondary Drinking Water Standards): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

ND: not detectable at testing limit

NTU: nephelometric turbidy unit

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

ppt: parts per trillion or nanograms per liter (ng/L)

pCi/L: picocuries per liter (a measure of radiation)

What is in our water?

In order to ensure that tap water is safe to drink, U.S. Environmental Protection Agency (USEPA) and the California Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Contaminants that may be present in source water include:

- *Microbial contaminants,* such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.
- *Inorganic contaminants,* such as salts and metals that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides,* which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- *Organic chemical contaminants,* including synthetic and volatile organic chemicals that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural application and septic systems.
- *Radioactive contaminants,* that can be naturally-occurring or be the result of oil and gas production and mining activities.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Additional General Information On Drinking Water

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline.

Nitrate in drinking water at levels above 45 mg/L is a health risk for infants of less than six (6) months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels above 45 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline, or at http://www.epa.gov/safewater/lead .

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical Or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detection	MCL	PHG (MCLG)	Typical Source of Contaminant
Gross Alpha (pCi/L)	2010-13	3	< 3 – 8	15	0	Erosion of natural deposits
Uranium (pCi/l)	2010-2013	3	< 1 – 9	20	0.4	Erosion of natural deposits
Radium 228 (pCi/L)	2007-2013	<1	< 1 – 2	5	0.02	Decay of natural and man-made deposits
Nitrate as NO3 (ppm)	2013	16	5 –26	45	45	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Fluoride (ppm)	2012-2013	0.1	< 0.1 – 0.2	2	1	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Arsenic (ppb)	2012-2013	< 2	< 2 – 3	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2012-2013	< 0.1	< 0.1 – 0.2	1	2	Discharge of oil drilling wastes and from metal refineries; erosion of natural deposits

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical Or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detection	MCL	PHG (MCLG)	Typical Source of Contaminant
Chloride (ppm)	2012-2013	10	8 – 19	500	N/A	Runoff / leaching from natural deposits; seawater influence
Sulfate (ppm)	2012-2013	8	2 – 17	500	N/A	Runoff / leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2012-2013	269	161 – 370	1000	N/A	Runoff / leaching from natural deposits
Conductivity (uS)	2012-2013	371	191 - 562	1600	N/A	Substances that form ions when in water; seawater influence
Turbidity (NTU)	2012-2013	< 0.2	< 0.05 – 0.8	5	N/A	Soil runoff

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of Months in Violations	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1 (in a month)	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	0 (in the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or *E. coli*	0	Human and animal fecal waste

DETECTION OF UNREGULATED CONTAMINANTS

Chemical or Constituent (and reporting units)	Sample Date	Range of Detections	Notification Level	Health Effects Language
Chromium VI (ppb)	2012 – 2013	2 – 5	N/A	N/A

SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER						
Lead and Copper (and reporting units)	No. of Samples Collected	90th Percentile Level Detected	No. Sites Exceeding AL	AL	MCLG	Typical Source of Contaminant
Lead (ppb)	29 (in 2011)	< 5	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	29 (in 2011)	0.13	0	1.3	0.3	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2012-2013	18	14 – 24	None	None	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2012-2013	182	92-290	None	None	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

*Any violation of an MCL or AL is asterisked.

Vulnerability Assessment Summary

A source water assessment was conducted for the wells of the City of Riverbank's water system in December of 2001. The sources are considered most vulnerable to the following activities not associated with any detected contaminants: gas stations, sewer collection systems, automotive repair/body shops, high density housing, and waste dumps / landfills. For more information regarding the assessment contact Eric Tackett, Domestic Water Supervisor at 209-869-7128.

Conservation is very important to our water supply. Please remember to:

- Follow the specific water schedule for your parcel;
- Watering is **RESTRICTED** any day between 12-noon to 7PM;
- Repair all leaks - inside and outside;
- Put food coloring in your toilet tank to discover leaks;
- Economize – For example, shut water off while brushing teeth, run full loads of dishes / laundry and reduce shower time;
- Insulate hot water pipes;
- Use a pool cover to prevent water loss through evaporation;
- Use a hose nozzle or turn off the water while washing your vehicles and pets;
- Scrape dishes instead of rinsing them before washing.

You are welcome to participate in the City Council Board Meetings to voice any concern regarding our drinking water. The Board meets the 2nd and 4th Tuesday of each month located at 6707 – 3rd Street, Riverbank, CA